

Category Awards

Applied Mechanics/ Structures & Mechanisms/ Manufacturing

First Place: S0214

Lopez, Noel L. Grade 9

Motors, Motors & More Motors -- Original Electric Motor Designs

Advisor: Mr. James Edwards

School: Mt. Everest Academy, San Diego

Aerodynamics/ Hydrodynamics

Third Place: S0114

Weekly, Garrett L. Grade 10

Ancient Polygonum Reveals Secret to Correct Ball's Erratic Flight Path

Advisor: Mr. J. Patzold

School: Clairemont Senior High School, San Diego

Behavioral Sciences

First Place: J0310

Delphey, Eden C. Grade 8

Talking on a Cell Phone while Driving: Is It Dangerous?

Advisor: Ms. Elaine Gillum

School: Marshall (Thurgood) Middle School, San Diego

Honorable Mention: S0324

Villa, Lilia L. Grade 12

Can Aesthetic Preferences in Visual Art be Biological?

Advisor: Mr. Steven Jensen

School: Sweetwater Union High School, National City

Biochemistry/ Molecular Biology

Honorable Mention: J0405

Tejeda, Francisco J., Jr. Grade 8

What Conditions Affect the Lactate Dehydrogenase Enzyme?

Advisor: Mrs. Kathy McNamara Schroeder

School: Del Dios Middle School, Escondido

Honorable Mention: S0410

Gupta, Sonia Grade 10

Original Mutagenesis Strategy Reveals Novel Activities in a Drosophila Gene and Potentially Any Gene of Interest

Advisor: Ms. Victoria Coordt

School: Torrey Pines High School, Encinitas

Chemistry

Third Place: J0520

Rucker, Jessica Grade 8

"Aluminum Soup": The Absorption of Aluminum and Iron into Citric Acid Solutions Boiled in Metal Cookware

Advisor: Ms. Roxanne Hunker

School: Rhoades (The) School, Encinitas

Electricity and Electronics

Honorable Mention: S0709

Hosein, Nicholas A. Grade 10

Demonstration of the Shape Memory Properties of Nitinol through a Simple Robot

Advisor: Ms. Valerie Atkinson

School: Torrey Pines High School, Encinitas

Environmental Engineering

First Place: J0814

Lopez, Colleen A. Grade 7

Growing Crops Using Recycled Water and Biological Filtration

Advisor: Mr. Matt Lopez

School: St. Francis of Assisi School, Vista

Second Place: J0802

Bauer, Matthew J. Grade 7

Critical Variables of an Effective Solar Box Cooker

Advisor: Mr. James Napolitan

School: Warren Walker School, San Diego

First Place: S0808

Redman, Andrew T. Grade 10

Development of a Shape Memory Alloy Actuated Flue Damper

Advisor: Mrs. Victoria Coordt

School: Torrey Pines High School, Encinitas

Mammalian Biology

Second Place: S1004

Hare, Kylise J. Grade 10

How Many Parents Does Asante Really Have? Colobus Allo-Parenting

Advisor: Mr. Martin Teachworth

School: La Jolla Senior High School, La Jolla

Microbiology

Third Place: S1325

Villalobos, Citlali H. Grade 12

An Important New Strain of *Sacchchromyces cerevisiae* Created using Biotechnology

Advisor: Mr. Larry Nordell

School: Mount Miguel High School, Spring Valley

Pharmacology/Toxicology

Honorable Mention: J1409

Csaszi, Andrea N. Grade 8

Effect of Fluvalinate on *Apis mellifera* Honeybees Infested by Varroa Mites

Advisor: Mr. Jonathan McLeod

School: St. Francis of Assisi School, Vista

Physics and Astronomy

Second Place: J1538

Stephens-Doll, Katherine C. Grade 8

The Effect of Differentiating Droplet Size on Rainbow Brilliance

Advisor: Ms. C. Shea

School: Children's Creative & Performing Arts, San Diego

Plant biology

First Place: J1627

Wallace, Katherine J. Grade 8

Which Pest Resistant Plant Can Best Protect Adjacent Pansies from Garden Snails?

Advisor: Mr. Michael Erickson

School: Maris (Stella) Academy, La Jolla

Social Sciences

First Place: J1712

Ponec, Ryan M. Grade 8

The Effects of a Student Generated Lesson Summary on Retention

Advisor: Mrs. Roxanne Hunker

School: Rhoades (The) School, Encinitas

Zoology

Second Place: J1907

Ellis, Vincenzo A. Grade 8

Comparative Habitat Use by Shorebirds

Advisor: Ms. Hunter-Drake

School: Lewis (Harvey L.) Middle School, San Diego

Second Place: S1906

Felix, Eric T. Grade 12

The Risks of Autotomy to Future Survival in *Pachygrapsus cressipes*

Advisor: Mr. Larry Nordell

School: Mount Miguel High School, Spring Valley

Honorable Mention: S1918

Rivera, Ardee Grade 12

Effects of Auditory Familiarity in Mate Selection for *Acheta domesticus*

Advisor: Mr. Larry Nordell

School: Mount Miguel High School, Spring Valley

Special Awards

California 4-H Service Through Science Award – \$1000 award given to the project that best uses science to address a pressing community need and that embraces the four Hs: Head, Heart, Hands, & Health. Sponsored by Wells Fargo and Five Star Legal.

Award: Andrea N. Csaszi, J1409

Recognition Awards

Health Physics Society, Southern California Chapter - Project which best demonstrates or observes the use or effects of ionizing and non-ionizing radiation. \$100 cash award for the first place student, \$100 for the student's teacher, and \$25 awards to honorable mentions.

Honorable Mention: Janelle M. LaFontaine, J1521

SPIE - The International Society for Optical Engineering - Senior Division only.

Awarded to the best project in optics or photonics engineering. One \$500 cash award, certificate, t-shirt, and student membership in SPIE.

Honorable Mention: Katherine C. Stephens-Doll, J1538